

WHAT IS CLAIMED IS:

1. An isolated polynucleotide comprising a polynucleotide selected from the group consisting of:

(a) a polynucleotide having the nucleotide sequence of SEQ ID NO: 1, 3, 5,

7, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42 or 44;

(b) a polynucleotide having the protein coding nucleotide sequence of a polynucleotide of (a); and

(c) a polynucleotide having the mature protein coding nucleotide sequence of a polynucleotide of (a).

2. An isolated polynucleotide encoding a polypeptide with biological activity, comprising a polynucleotide that encodes the amino acid sequence of SEQ ID NO: 2, 4, 6, 8, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43 or 45 or the mature protein sequence thereof.

3. An isolated polynucleotide encoding a polypeptide with biological activity that hybridizes under highly stringent conditions to the complement of a polynucleotide of any one of claims 1 or 2.

4. An isolated polynucleotide encoding a polypeptide with biological activity, said polynucleotide having greater than about 90% sequence identity with the polynucleotide of claim 1 or 2.

5. The polynucleotide of claim 1 or 2 which is a DNA.

6. An isolated polynucleotide which comprises a complement of the polynucleotide of claim 1.

7. An expression vector comprising the DNA of claim 5.

8. A host cell genetically engineered to express the DNA of claim 5.

9. A host cell genetically engineered to contain the DNA of claim 5 in operative association with a regulatory sequence that controls expression of the DNA in the host cell.

5 10. An isolated polypeptide with biological activity comprising the amino acid sequence of SEQ ID NO: 2, 4, 6, 8, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43 or 45 or the mature protein sequence thereof.

11. An isolated polypeptide with biological activity selected from the group consisting of:

- 10 a) a polypeptide having greater than about 90% sequence identity with the polypeptide of claim 10, and  
b) a polypeptide encoded by the polynucleotide of claim 3.

12. A composition comprising the polypeptide of claim 10 or 11 and a carrier.

15 13. An antibody directed against the polypeptide of claim 10 or 11.

14. A method for detecting a polynucleotide of claim 3 in a sample, comprising the steps of:

- 20 a) contacting the sample with a compound that binds to and forms a complex with the polynucleotide for a period sufficient to form the complex; and  
b) detecting the complex, so that if a complex is detected, a polynucleotide of claim 3 is detected.

25 15. A method for detecting a polynucleotide of claim 3 in a sample, comprising the steps of:

- 30 a) contacting the sample under stringent hybridization conditions with nucleic acid primers that anneal to a polynucleotide of claim 3 under such conditions; and

- b) amplifying the polynucleotides of claim 3 so that if a polynucleotide is amplified, a polynucleotide of claim 3 is detected.

16. The method of claim 15, wherein the polynucleotide is an RNA molecule that encodes a polypeptide of claim 11, and the method further comprises reverse  
5 transcribing an annealed RNA molecule into a cDNA polynucleotide.

- 17. A method for detecting a polypeptide of claim 11 in a sample, comprising:
  - a) contacting the sample with a compound that binds to and forms a complex with the polypeptide for a period sufficient to form the complex; and
  - b) detecting the complex, so that if a complex is detected, a polypeptide of claim 11 is detected.

18. A method for identifying a compound that binds to a polypeptide of claim  
15 11, comprising:

- a) contacting a compound with a polypeptide of claim 11 for a time sufficient to form a polypeptide/compound complex; and
- b) detecting the complex, so that if a polypeptide/compound complex is detected, a compound that binds to a polypeptide of claim 11 is identified.

19. A method for identifying a compound that binds to a polypeptide of claim  
11, comprising:

- a) contacting a compound with a polypeptide of claim 11, in a cell, for a time sufficient to form a polypeptide/compound complex, wherein the complex drives expression of a reporter gene sequence in the cell; and
- b) detecting the complex by detecting reporter gene sequence expression, so that if a polypeptide/compound complex is detected, a compound that binds to a polypeptide of claim 11 is identified.

20. A method of producing the polypeptide of claim 11, comprising,

- a) culturing the host cell of claim 8 for a period of time sufficient to express the polypeptide; and
- b) isolating the polypeptide from the cell or culture media in which the cell is grown.

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